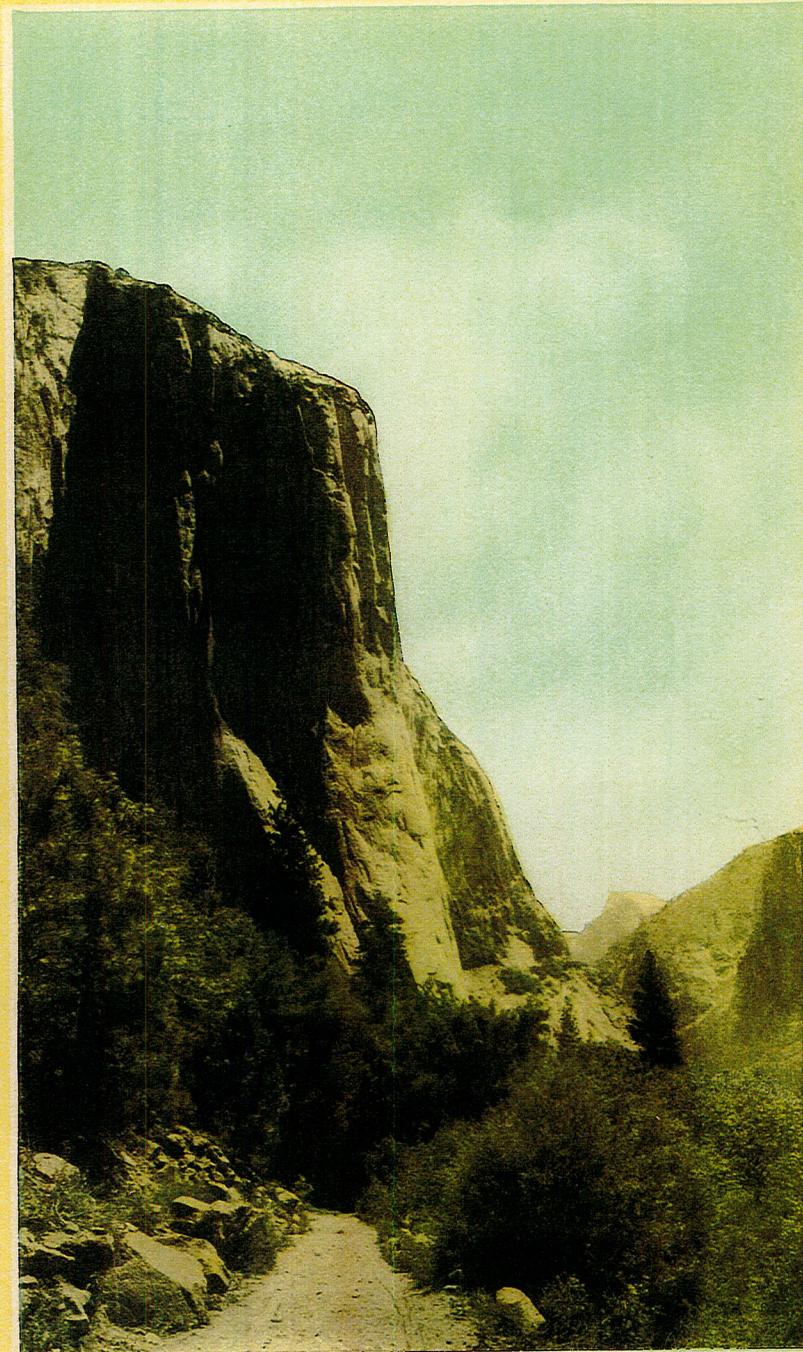


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California as a Health Resort

By

F. C. S. SANDERS, M. D.

CAMBRIDGE UNIVERSITY, ENGLAND

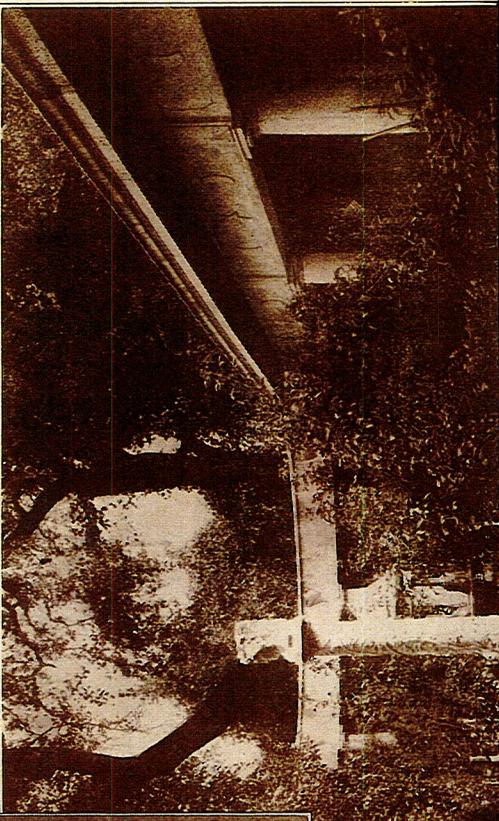
Author of
"Tropical Diseases of the Skin and the Kidneys"

"*Mens sana in corpore sano*"

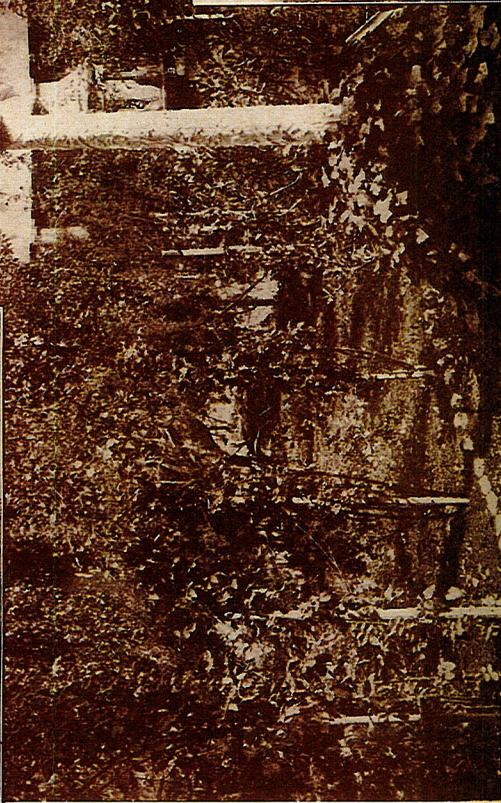
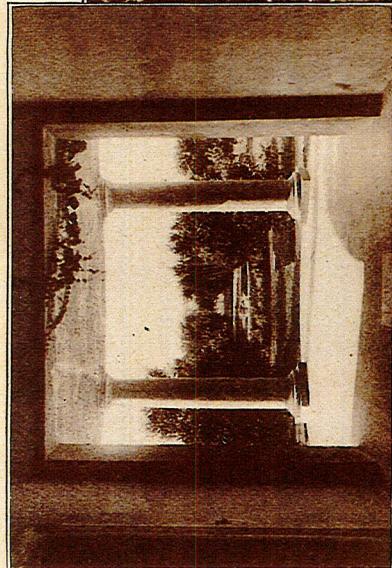
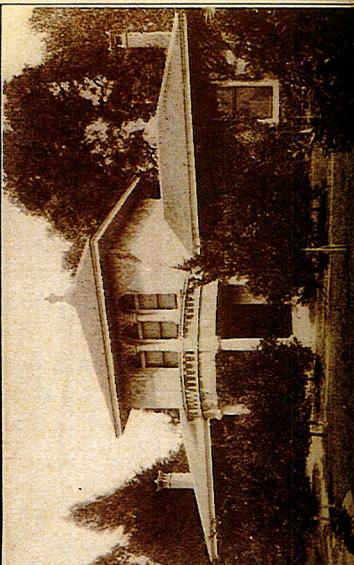
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POMPEIAN HOME AT ASTI



VITICULTURE

*"When 'round the festive board we sit,
And pass around the wine,
Remember, though abuse is vile,
Yet use may be divine,
'Twas Heaven in kindness sent the grape
To please both great and small,
It's little fools who drink too much,
But big fools none at all."*

CHAPTER IX

IN THE VINEYARDS.



HE Egyptians, Assyrians and Hebrews cultivated the vine and made and drank wines thousands of years before the birth of Christ, while allusions are made to the industry and custom from Genesis to Revelations. The wines of Helbon and Lebanon were renowned, as were those of Campania and the coast of Thrace. The early methods of wine making are often delineated in sculpture and pictures. The Egyptians were probably the first actual wine makers, and squeezed out the juice of their grapes by treading the fruit with naked feet, they then put the juice into large jars, at the bottom of which they had placed resin before the process of pouring. This method was afterwards practiced for many years in Italy and Greece and is still carried out by many of the inhabitants of the islands of the Archipelago. In early days the juice of the grape was often mixed with honey, or a liquor from the pomegranate. The Assyrians and Hebrews mixed their fermented juices with those from the date and other sweet fruits. At the time of Homer the wines of Thrace were the best known. Wine was the ordinary drink of the Greeks in early days, just as it is today that of the Latin races of Europe. The processes of the makers of wines in those days were the same as at present, except that the methods of cultivation and pressing have undergone essential changes. Up to two thousand years ago

nearly all of the wines made in Grecian and Roman countries from grapes, were spiced with wormwood and hoarhound, or mixed with some saccharine matter. The choicest wines of Rome were those from the growths of Campania. The favourite drink of Augustus, according to Pliny and Horace, was the Setine, a light partially sweet wine made from the juice of the grape mixed with fine honey. An after-dinner wine in those days was a certain Campania wine blended with a mixture made of honey, mulberry seed, pomegranate, and the juice of figs. There were other after-dinner wines which were an assimilation of Setine and the juice from medlars and mulberries. Coming down to a later day it is known that the old English made their own wines, and that where the city of London now stands there were several vineyards. Those early English viticulturists also mixed their straight wines with honey, cider, mead or hydromel. In those days, as in the days of excessive Roman and Greek wine drinking, men took wine, not to temperately stimulate, but to get themselves into the proper condition to be placed under the table. Coming down to the present day, it is known that the grape was cultivated for the purposes of wine making, first in Germany and some parts of Italy, other than the immediate neighbourhood of Rome, from 800 to 1800 years ago. Wine-making was carried on in these countries a long time before it was introduced into France or Spain. The height of excellent wine-making, however, was reached first in France, then in Germany, and later in Spain, and it is today generally conceded that the majority of the most delicate white wines come from Germany; that the highest order of red wines are from France, and that the most superior sweet wines are made in Spain, Portugal and Madeira; that next to these rank California and Australian wines, and so along through Missouri, Ohio, New York and New Jersey. Brillat Savarin tells the story of a certain noted French general named Besson, who breakfasted invariably with eight bottles of wine. He had a huge glass, and all one knew was that somehow or other he always kept the glass empty, and when asked how wine should follow at a dinner, and which liquid was the most precious to his taste, said: "The best bottle of wine is precisely the one that comes last—only they must always keep coming." Moderate wine drink-

ing is still in vogue among all people of polite means, who scorn alike the deadly mischiefs of spirits, cocktails and iced waters. St. Paul advised Timothy to take a little wine for his stomach's sake, while we learn from the New Testament, that the Master, at a certain ceremony of marriage, actually transformed water into wine. The great wine drink of the masses of civilized mankind, and particularly in Italy and France and other Latin countries, is claret, or claret and the many other light red wines which resemble it. This wine is undoubtedly a much safer and in all respects better beverage to be taken with food than any other known. No wine or other prepared liquid, assimilates with food so satisfactorily. Claret, alone, has not injured many, whereas the contents of the ice-pitcher or the mischievous soda fountain have sickened tens of thousands. Probably no human beings have ever been seriously hurt by a moderate use of good claret taken with their food. It is used all over continental Europe, by the poorest as well as by the richest, and its consumption is largely on the increase in all other civilized sections.

The introduction of the European vines into California dates back to 1771. They were brought from Spain by way of Mexico by the Catholic Missions. The Mission of San Gabriel at Los Angeles planted the first vineyard, and the planting of vines extended from Mission to Mission, until vineyards of from five to thirty acres stretched from San Diego to Sonoma. They had but one variety, which is still largely grown and known by the name of Mission. A Mission vine planted at Montecito, California, in 1795 was exhibited at the Centennial Exposition in Philadelphia. It was 18 inches in diameter, and in one season had produced over five tons of grapes. At this time all the vineyard labor was performed by the native Indians. All the Missions grew this one variety of grape, which produced from 700 to 1,000 gallons of wine to the acre, and practically all was consumed in the neighborhood. There were no facilities for export, neither were there casks or bottles. The wine was fermented in cemented cisterns, where it was allowed to remain, or was drawn into hides, or earthenware jars. With the downfall of the Spanish power in Mexico, the Californian Missions waned, and with them viticulture declined also. In 1845 the Missions were abolished and confiscated, and the Americans,

when they came into possession, found both Missions and vineyards in ruins. According to the sugar retained by the arrest of fermentation, wines are divided into sweet and dry; according to color, into red and white, and according to the presence or absence of carbonic acid gas generated in fermentation and retained under pressure, into still and sparkling. The presence or absence of sugar contained in grapes when used for winemaking is influenced by many conditions, such as the variety of the grape, soil, climate and the vicissitudes of the season, and will vary from fifteen to twenty-five per cent.

In fermentation, sugar is converted into alcohol, and for sweet wines the grapes with the largest percentage of sugar are selected. Before enough of the sugar is fermented out to convert the juice into a dry wine, grape brandy is added to give the requisite alcoholic strength, and to arrest fermentation. Red wines are made from grapes with colored skins, which are fermented with the juice, and the heat of fermentation extracts the coloring matter. White wines are usually made from distinct types of light-colored grapes fermented without the skins.

In the year 1850, 58,055 gallons of wine were produced by two counties, and in 1860, 246,518 gallons were made in the State. The number of grapevines in California in 1858 was 3,954,548. In 1861 Agostin Haraszthy, as a member of the Commission on Viticulture, appointed by the Legislature, visited the famous wine districts of Europe and purchased 100,000 vines, embracing about 1,400 different varieties, which were propagated at Sonoma. Cuttings from these vines were distributed among the growers in different parts of the State. From that time the manufacture of wine in California has had a continuous and marvelous growth, interrupted only by the depreciation of prices in certain years. In 1870, 1,814,656 gallons of wine were produced on farms, the three leading counties being Los Angeles, 531,710 gallons; Sonoma, 308,496 gallons, and Santa Clara, 85,150 gallons. In addition, 139 wineries, with a capital of \$658,420, produced wine of the value of \$602,553, but the quantity is not stated. Between 1870 and 1875 there was a great increase in the acreage of vineyards. This caused an over-production of wine, which was followed by ruinous depreciation in prices. Many vineyards were uprooted and the land devoted to other uses. In 1870 there were 139 wineries;

in 1880 the number had fallen to 45. The large vineyardists, however, continued to improve their properties, and by 1879, as the result of the growing demand for California wines, consumption had overtaken production and prices advanced. Since 1880 the progress of wine manufacture has been continuous. In 1890 the vintage had increased to 14,626,000 gallons, the five largest producers being Napa, Santa Clara, Sonoma, Los Angeles and Fresno. In 1900 the production was 19,983,000 gallons, of which 8,433,000 gallons were sweet wines and 11,550,000 gallons dry wines. In the tariff act of 1789 Madeira is the only one mentioned by name, the duty being 18 cents a gallon. In 1790 Madeira and Sherry are mentioned; in 1792, Saint Lucan, Lisbon, Oporto and Teneriffe wines appear; in 1795 Malaga, Burgundy and Champagne, and in 1800 Malmsey, Rheinish, Tokay and Claret are mentioned for the first time. Brandy was not named separately, apart from spirits, until 1842.

Some of the Californian vineyards are now the largest and best cultivated in the world. In the southern part of the State there is the large vineyard of the Italian Vineyard Company, in San Bernardino County, comprising 3,200 acres of all the best varieties, including Alicante, Bouchet, Zinfandels, Burger, and a dozen others. In Central California there is the Wahtoke vineyard, near Reedley, in Fresno County, of 3,631 acres, with 2,500 already planted and in bearing, and containing some of the leading varieties; in Northern California there is the Italian-Swiss Colony vineyard at Asti, in Sonoma County. These are the most important large vineyards in the State.

The largest wine producers and consumers in the world are France and Italy in Europe, and Argentina in South America. The total area under wine grapes in Italy is over 11,000,000 acres; in France about 4,000,000 acres, and in Germany about 280,000 acres. The Argentina vintage in 1912, according to the Minister of Agriculture, was 107,800,000 gallons, produced from 1,345,000,000 pounds of grapes. The bulk of this enormous output, as in France and Italy, is consumed at home. The production of wine, both in quantity and quality, varies considerably from year to year in all countries, grapes depending more than almost any other crop upon weather conditions. France is the largest producer in the world,

followed closely by Italy. In all wine countries the domestic consumption is large, in France amounting to 33 gallons per capita, in Italy 25.8 gallons, and Spain ranks next with rather more than 18 gallons. In English-speaking countries the consumption is very small. There are no reliable data available regarding the production of the various kinds of dry wine, but since 1890 the exact figures for sweet wines and brandy have been recorded. The quantity of sweet wine has increased during the last twenty years from 1,803,000 gallons to 23,467,000 in 1912, which is by far the heaviest in the history of the industry. Owing to the dry season the quantity was only 17,927,812 for 1913. Port and Sherry are the two popular wines, the former leading as a rule, but in some years the output of Sherry comes to the front, as in 1903 and 1912, when it was upwards of 8,000,000 gallons. Muscatel and Angelica are the next favorites, followed by Malaga and Tokay. California grows the principal wine grapes of France, Italy, Spain, Portugal and Germany, and the variety of types of wines produced is unequaled by any country in the world. Surplus table and shipping grapes are used for the manufacture of wine, but the qualities desirable in a shipping grape differ from those of a good wine grape and the product is inferior. They are more suitable for making brandy, which is their principal use. Surplus raisin grapes are used for the same purposes, but the quality is somewhat better. Large quantities of sweet wine and brandy are made from the Muscat of Alexandria, and form a special type of their own. The great bulk of all the dry and sweet wines and of brandy is made from a special wine grape which is unsuited for other purposes.

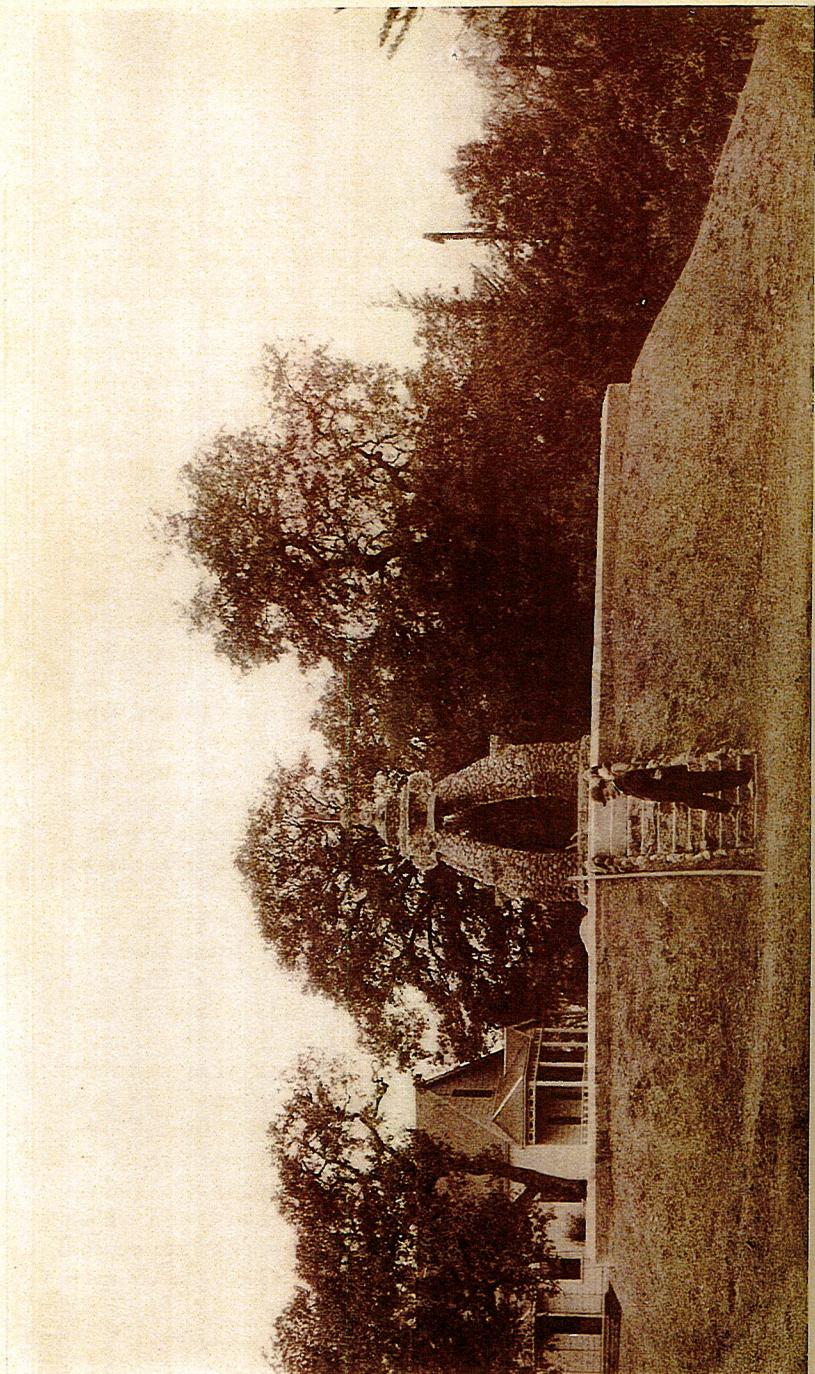
It is usual to classify the wine-producing areas of California into "Dry wine districts" and "Sweet wine districts." Those included in the former are situated principally in the valleys and hills of the counties of the Coast Range, from Mendocino to San Diego. The great central valleys of Sacramento and San Joaquin, from Shasta to Kern, constitute the latter. Fine wines are made on the warm, well-drained slopes of the Coast Range of hills, in similar situations in the foothills of the Sierra, and in favored locations in valley and plain, where the physical conditions of the soil resemble those of the hill slopes. The quality of the wines may be equal in all these locations, though the character will differ widely, according to the

climate and to the variety of grapes grown. In the cooler parts of the northern and central grape-growing regions of the coast counties the lightest dry wines, resembling the Rhine, Moselle, Champagne and Medoc types, are made. In the warmer parts of these same regions and in favored locations in the Sierra foothills and Southern California, wines resembling Chablis, Burgundy, Hermitage, Sauternes and the fine wines of Italy are made.

Bulk or cheap wines can be made anywhere that the soil, water and climate favor the production of large crops. This includes the rich valleys both of the coast and of the interior. The bulk wines of the coast tend to be too high in natural acidity and low in alcohol; those of the interior with abundant alcohol are usually deficient in acidity. These opposite defects are mutually complementary, and by judicious blending, either of the grapes before or of the wines after fermentation, good standard wines can be produced very cheaply.

The record production of sweet wine was during the year 1911, when the different varieties yielded over twenty-three million gallons; the total amount of Brandy produced was six and a half million gallons, and the quantity used for fortification was two and three-quarter million gallons. The production of dry wines for that year was estimated at twenty-five million gallons.

Practically all the principal wine grapes of Europe have been introduced into California and tested. About four-fifths of the wine, both dry and sweet, is made from about a dozen varieties, and between forty and fifty will include over 95 per cent of the wine grapes. The Zinfandel is the typical red wine grape of California, and is grown in larger quantities than any other. From it the bulk of dry and sweet red wines is made. The proportion of Zinfandel, however, tends to diminish in newer plantings. Other red wine varieties largely planted are Carignane, Petite Sirah, Mataro, Bouchet, Grenache, Alicante, Blue Elba and Charbono. The commonest white wine grapes are Burger, Colombar, Palomino, Green Hungarian, Feher Szagos and Muscat of Alexandria. Of table and raisin grapes, used largely for winemaking, the principal are, besides the Muscat, Flame Tokay, Malaga, Sultanina (Thompson's Seedless) and Verdal. The yield of average vineyards varies from one or two tons per acre to eight or ten tons. This difference depends principally on the soil and climate and on the methods of the grape



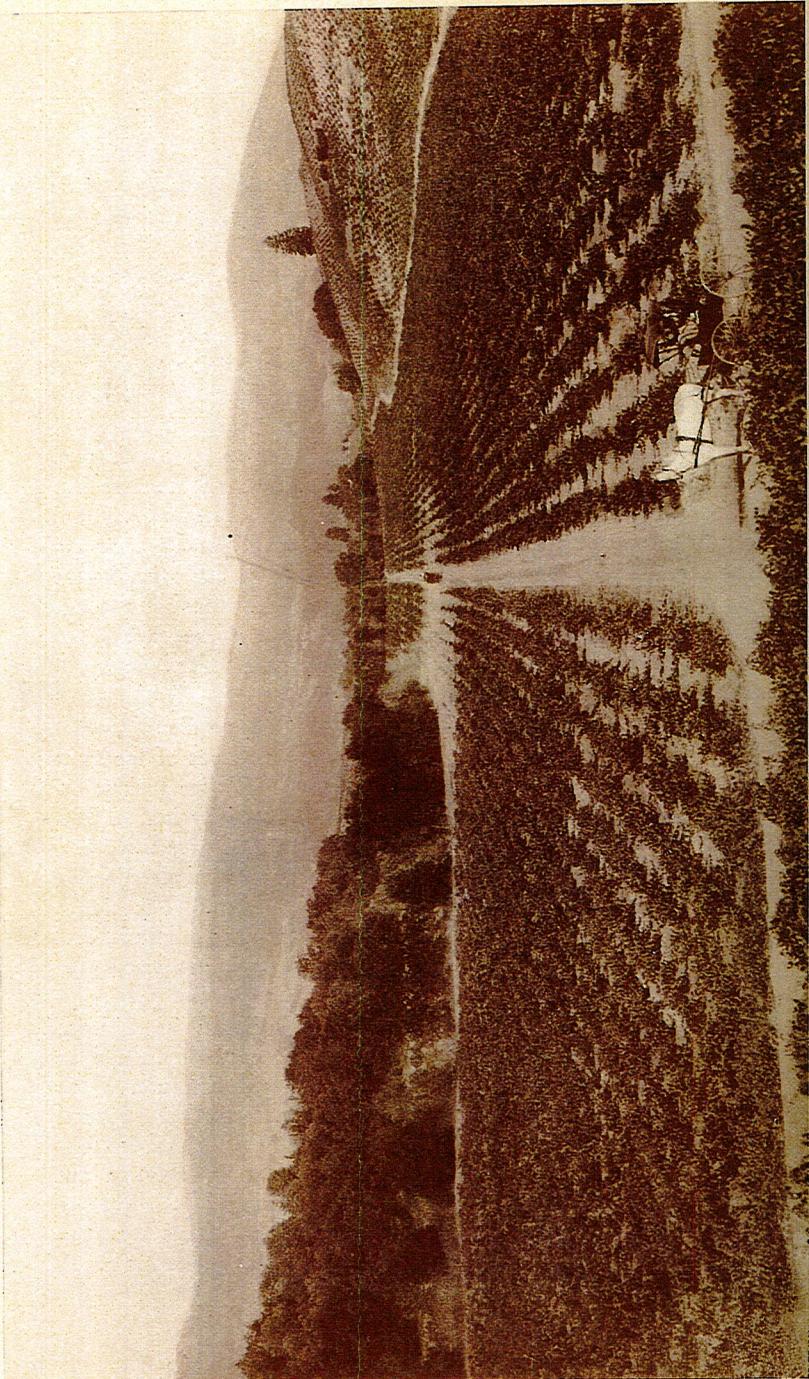
LARGEST WINE TANK IN THE WORLD. CAPACITY, 500,000 GALLONS, ASTI, CALIFORNIA

A LAKE OF WINE

grower. Some varieties have the reputation of being heavy bearers and some of being light. The differences, however, are more those of proper adaptation to conditions and the use of proper viticultural methods. A variety, such as the Semillon, with a reputation as a light bearer, may produce seven to eight tons to the acre, if planted in a suitable location and properly pruned and cultivated. A variety such as the Burger owes its reputation of heavy bearing to the fact that it will bear in almost any location and however unskillfully it is treated. Practically all varieties producing fine wines require great care in selection of cuttings, suitable soil and climate, and skilled treatment by the cultivator. Some varieties, such as the Riesling, give fine wines, though of different character, wherever they are planted. Others produce a fine wine in one locality and a poor one in another. The Cabernet Sauvignon produces a fine wine in the cooler regions, and a harsh, disagreeable wine in the hot regions. Most of the varieties recommended for bulk wines are capable of yielding fine wines under favorable conditions when blended with a sufficient quantity of finer varieties.

The Italian-Swiss Colony have at Asti, in Sonoma County, what is virtually a subterranean lake of wine; it is carved out of the solid rock and lined with glazed Portland cement. This wine tank is 84 feet long, 34 feet wide and 25 feet high. Its capacity is 500,000 gallons. It would at a banquet supply 4,000,000 guests with a pint of wine each. When first emptied one hundred couples danced within its walls to the music of a large military band. The cistern was built to conserve the wine until opportune time for selling it, and to make large blends and maintain from year to year the same type and character of wine.

Mr. A. Sbarboro, the founder of the Italian-Swiss Colony, and from the commencement its enterprising secretary, has a unique summer home at Asti that is a fac-simile of the Vetti house, which was uncovered among the ashes of Vesuvius at Pompeii. Several years ago, when on a tour to his native land, Mr. Sbarboro visited the interesting ruins of the ancient city that was blotted out under the fiery wrath of the furnace-mountain behind it. The romantic trend of his nature prompted him to bring to Asti a replica of one of the houses that had been buried in the lava maelstrom. A copy of the plans was presented to Mr. Sbarboro by Prof. Lembo



VINEYARD AT ASTI, SONOMA COUNTY

CALIFORNIA CHAMPAGNE

from the original on file in the archives of Pompeii. It is one of the show places of California.

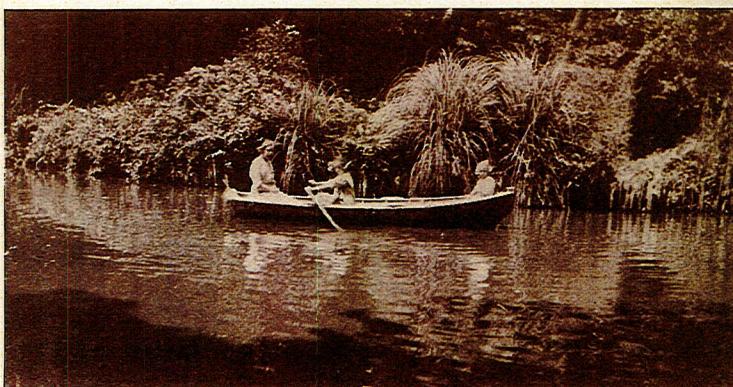
The manufacture of sparkling wines is now engaging the attention of the winemakers in California, and promises to be successful. The production of naturally fermented champagne in the bottle during the last three years has steadily increased, the total being estimated as follows: In 1911, 580,000 bottles; in 1912, 800,000 bottles; in 1913, 1,000,000 bottles. The bottling is done in the months of June and July of the following year. The increase in the output is largely due to the heavy bottling of the Italian-Swiss Colony during the past ten years. Last year they filled four hundred thousand bottles of "Golden State Champagne," which is the name their brand goes under, and this year it is expected that six hundred thousand bottles will be filled at Asti. This champagne is made from a blend of the juices of five varieties of grapes, the principal grape being the Petit Pinot, which is the champagne grape so much used in France. The product of the proper blending of the juices of these different grapes is called a Cuvée, and after bottling it requires at least three years before it is really fit to drink. The sparkle or effervescence of the wine is due to the production of carbonic acid gas from natural fermentation after bottling and corking. The same applies to the Sparkling Burgundy, or Asti Rouge.

About two miles southeast of the town of Sonoma I visited the oldest vineyard in the State; it consists of a little over two hundred acres, lying along the sunny hillsides of the Huichica Mountains, and is known as the "Rhine Farm Vineyard." Here the soil is particularly fertile and unusually well adapted for grape culture. The vines planted are of the Rheinish type and best French varieties, and produce wines of exceedingly fine quality. The cuttings originally were imported from Europe, and were grafted in 1856 on resistant stock by the late Mr. Jacob Gundlach, who was one of the first pioneers to plant out a vineyard in California. It is needless to say that the viticultural interests of the State of California have had a great many difficulties to overcome. The very first vineyards planted were not grafted on resistant stock, and it was not long before the phylloxera destroyed nearly all of the dry wine vineyards. A great many of these were replanted, but not all of them.

The soil and climatic conditions of beautiful Napa Valley is another region that is particularly well adapted to the growing of certain kinds of grapes. A writer has described this section of California as a "Pocket Empire," and the title is true and appropriate.

The United States Government, when in quest of a suitable place for the last days of her G. A. R. soldiers, chose, by the unanimous vote of the investigating committee, Napa Valley as the site for their Home. They expended over one million dollars in land and buildings for the housing of some fifteen hundred veterans.

Many years ago Colonel Theodore Gier, of Oakland, saw what, from a viticultural point of view, this spot meant, and bought many hundreds of acres of rich land which he planted with a carefully selected lot of all kinds of European vines. On his Sequoia ranch, in addition to his vineyards, and a 500,000-gallon wine cellar, he has over 250 species of trees, surrounding a beautiful country home, in the grounds of which is a lake and a small mineral sulphur spring. This location and soil seems to be particularly favourable in bringing to perfection the grapes from which is made wines of the Riesling and Rheinish type. Near Mr. Gier's St. Helena vineyard is the second largest sanitarium in the United States.



Another Californian vineyard whose product is popular in Europe is that of the Cresta Blanca. This vineyard is located at the mouth of the cañon of the Arroyo del Valle, near Livermore, in Alameda County, and embraces a tract of nearly a square mile of valley land, all of which is adapted to grape culture. Here many years ago were planted cuttings from the vines of French vineyards, and here today these vines worthily uphold the high standard of the parent stock.

The manufacture of Grape Juice in the State of California does not appear to be increasing. The best authorities place the quantity at about seventy-five thousand gallons, and it is claimed that so far there is no profit in its manufacture. Many judges consider that some of the Eastern varieties of grapes, such as the Concord, are better suited for the making of grape juice.

The prices paid for grapes vary considerably, according to the varieties and districts. The average price for standard wine grapes, such as Zinfandel, in the bay counties was in 1911 \$14 per ton, and in 1912 \$15 per ton, but for special varieties, such as Petite Sirah, Serene, Mondeuse, Cabernet, etc., as high as \$20 was paid. In Fresno County in 1911 the price paid for average sweet wine grapes (not including Muscats) was \$10 per ton, and in 1912 from \$5 to \$6 per ton. In other parts of the San Joaquin Valley and the Sacramento Valley \$9 per ton was paid for average wine grapes in 1911, and as high as \$11 for special varieties. In 1912 standard grapes were \$6 per ton, and for special varieties as high as \$10 per ton. During the year 1913 the average price was \$10 per ton, and \$27 per ton in dry wine districts in the coast counties.

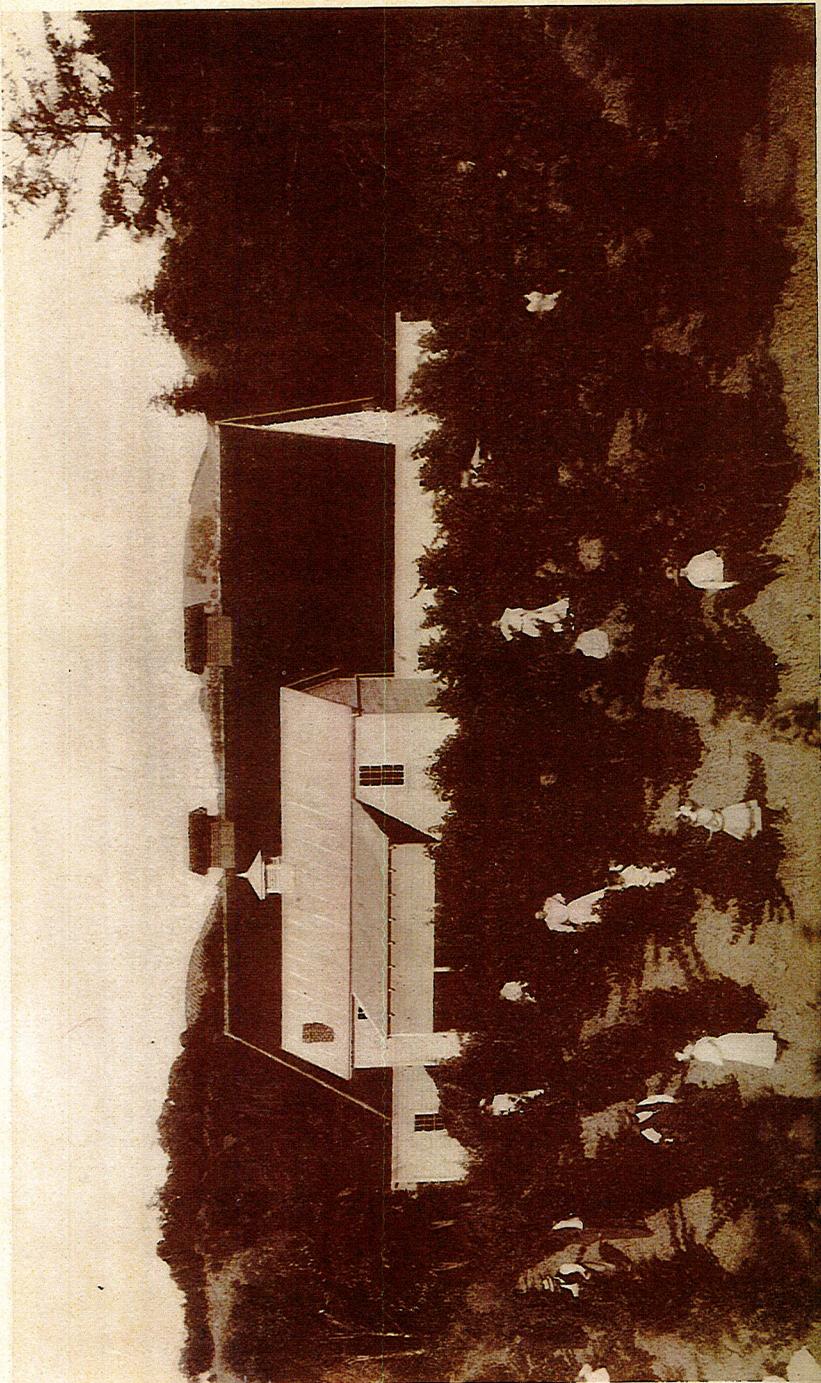
Almost all the Brandy made in the United States is produced in California. In 1913 California produced 7,472,561 gallons, and all other States only 780,313 gallons. Brandy is also produced from other fruits, and until 1908 was shown separately from grape brandy in the internal revenue returns; since then all brandy is included under the head of "fruit brandy." The quantity, however, is not large; in 1908, the last year the varieties are shown separately, fruit brandy, other than grape brandy, was only 94,558 gallons, while grape brandy amounted to 5,367,489 gallons. The fruits from which brandy is made, other than grapes, are prunes, peaches, pears, apricots, apples, oranges, figs and berries. The

TEMPERANCE V. ABSTINENCE

production of brandy during the last twenty years has also greatly increased. In 1891 the quantity amounted to 1,474,876 gallons, and in 1913 to 7,472,561 gallons. Considerably more than one-half of this is used for fortifying the sweet wines, the amount used for this purpose in 1913 amounting to 4,671,415 gallons.

In 1914 a bill was voted on by the people of California with the object of making the State dry. It failed to pass, but will be taken up again in a year or two. At the present time it is an issue of great moment to those who own vineyards, as the proposition was so drastic that to them, if it passed, it meant ruin.

In the United States prohibitory and restrictive legislation has divided States into warring political factions and brought about endless litigation. In this contest there is one redeeming feature, and that is that the good people on each side are fighting for the same cause—the reduction and eventually the removal of the evil of drunkenness. The only difference between the contending parties is the method by which this great desideratum is to be attained. In presenting their case those opposed to prohibition say that prohibition has been shown not to remove drunkenness in the cities where it has existed for over fifty years, and where every effort has been made to enforce it; further, that it would destroy millions of dollars' worth of the products of the farmer, throw thousands of people out of employment, and deprive every American citizen of that which he most prizes—the sacred right of personal liberty. Cardinal Gibbons has said that prohibition leads to disrespect of the law, because its inevitable result is the violation of the law, as is shown in nearly every city and State where prohibition has been tried. The great majority of the people of every State in the Union believe in true temperance, and the great majority of the people of every State do not believe in prohibition. Henry Ward Beecher once remarked: "If you say to me that I ought not to drink, perhaps I would agree with you; but if you tell me I must not drink, I will drink, because I have a natural right to do so—to drink what I please." A false notion is that the abuse of wine should prohibit the use of it. It never helps any cause to raise false issues about it, or defend it with unsound arguments.



THE GIER VINEYARDS AND WINERY AT ST. HELENA

